Scientific Note

AQUATIC HETEROPTERA (NOTONECTIDAE AND MACROVELIIDAE) NEW TO WASHINGTON AND IDAHO

During the past several years I have conducted an intensive survey of the aquatic Heteroptera and Coleoptera of Washington State and the Pacific Northwest to better understand the fauna and to complement studies by other researchers (Stonedahl, G. M. & J. D. Lattin. 1982. Oregon State Univ., Agr. Exp. Tech. Bull. 144; Stonedahl, G. M. & J. D. Lattin. 1986. Oregon State Univ., Agr. Exp. Tech. Bull. 150; Biggam, R. C. & M. A. Brusven. 1989. Great Basin Nat., 49: 259–274). Among the more interesting records are the first collections of *Buenoa* (Notonectidae) and *Macrovelia hornii* Uhler (Macroveliidae). No specimens of *Buenoa* were known previously from Washington or Idaho (Polhemus, J. T. & D. A. Polhemus. 1988. Catalog of the Heteroptera, or true bugs, of Canada and the continental United States. E. J. Brill, New York) or, in fact, from the Pacific Northwest (Truxal, F. S. 1953. Univ. Kansas Sci. Bull., 35: 1351–1523). Scudder, however, intensively surveyed British Columbia and collected *B. confusa* Truxal and *B. macrotibialis* Hungerford (Scudder, G. G. E. 1977. Syesis, 10: 31–38).

I found three species of *Buenoa*, but none in large numbers. A single *B. margaritacea* Torre-Bueno was taken (WASHINGTON. *LINCOLN Co.*: Snyder Slough, 30.4 km NW of Ewan) in conjunction with a much larger series (19) of *B. macrotibialis*. Snyder slough is a series of small seep and spring runoff pools which occupy an area of rough basalt in east-central Washington. During the spring the area is usually flooded and collecting is unproductive. As summer progresses the area covered by water is drastically reduced until only a series of small pools are left. Both *B. margaritacea* and *B. macrotibialis* were taken from the slough in late August.

Buenoa macrotibialis was also collected (WASHINGTON. GRANT Co.: Columbia National Wildlife Refuge, ca. 19.2 km NW of Othello), again, in an area of seep and runoff pools. Only a single specimen was found in water approximately 1.5 m deep during over two hours of searching. Large numbers of Notonecta unifasciata Guerin-Meneville and Hesperocorixa laevigata (Uhler) were taken in the same pool. In Idaho, six specimens were taken from a farm pond (IDAHO. LATAH Co.: 1.6 km W of Helmer) in late August. The pond had been reduced to approximately one-third of its normal size due to two years of severe drought. Although the pond had been sampled numerous times previously and several times since, no other specimens have been collected.

Buenoa confusa was collected from two sites in northern Idaho (IDAHO. BOUNDARY Co.: Kootenai National Wildlife Refuge, Leo's pond; Sinclair Lake, ca. 8 km S of Eastport). "Leo's pond" is a shallow, mud-bottomed pool with little algal vegetation. Sinclair Lake is a woodland pool which was just under 2 m deep where the single B. confusa was taken. A single B. confusa (WASHINGTON.

WASHINGTON AND IDAHO

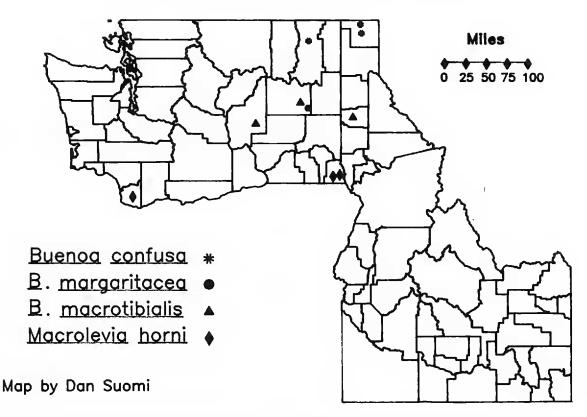


Figure 1. Distribution of Heteroptera new to Washington and Idaho (see text).

STEVENS Co.: Thomas Lake, 36.8 km NE of Colville) is in the Oregon State University—Systematic Entomology Laboratory.

Buenoa is probably more common throughout Idaho and Washington than reported here. All of my specimens were taken late in the year when pools were at their lowest levels, or during periods of extreme drought. In several instances they were taken from areas of the ponds that would normally be impossible to sample. It is possible that Buenoa normally inhabit deeper water and are thus unlikely to be collected.

Macrovelia hornii Uhler (Macroveliidae) was taken at three locations in Washington, two in the extreme southeastern corner and one in the southwestern part of the state. At both eastern locations (WASHINGTON. ASOTIN Co.: 6.4 km S of Anatone; 9.6 km W of Asotin, along Asotin Creek) the insects were taken in vegetation along the margins of moving water. At the western site (WASHINGTON. CLARK Co.: ca. 8 km NE of Battle Ground) the habitat consisted of a shallow pool approximately 15 m across. The specimen was taken in vegetation along the pond margin.

Acknowledgment.—I thank F. S. Truxal for aid in the identifications of Buenoa. Material used for this study was collected by the author, J. Back, J. Jenkins, J. Sirota, J. D. Lattin, and W. J. Turner. An early draft of the manuscript was reviewed by R. D. Akre and E. P. Catts. The map was generated by Dan Suomi.

Richard S. Zack, Department of Entomology, James Entomological Collection, Washington State University, Pullman, Washington 99164-6432.

Received 4 November 1989; accepted 4 January 1990.